I. IN THE CLAIMS:

Claims 45-68 and 71 are canceled.

72. (new) A kit for generating a perioperative genomic profile for a subject, comprising:

a) reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNF*α and *TNF*β so as to generate a genomic profile for use in selecting a perioperative course of action for said subject; and

b) a computer program comprising instructions which direct a processor to analyze data derived from use of said reagents.

73. (new) The kit of claim 72, wherein said instructions translate said data into information of predictive value for a clinician.

74. (new) The kit of claim 72, wherein said instructions translate said data into a risk assessment for treatment options.

75. (new) The kit of claim 72, wherein said instructions translate said data into recommendations for treatment options.

76. (new) The kit of claim 72, wherein said instructions generate a report for display to a clinician.

77. (new) The kit of claim 76, wherein said display is in the form of a report that can be printed.

78. (new) The kit of claim 76, wherein said display is in the form of a report on a computer monitor.

79. (new) The kit of claim 72, wherein said instructions are sufficient to receive, process and transmit said data to and from said subject, a clinical laboratory and medical personnel.

80. (new) The kit of claim 73, wherein said transmission of said data uses an electronic communication system.

81. (new) The kit of claim 74, wherein said electronic communication system transmits said data to a distant computer system for processing.

82. (new) The kit of claim 72, wherein said instructions direct the fate of said data according to said subject's preference.

83. (new) The kit of Claim 72, wherein said instructions comprise information to optimize perioperative care that, based on at least the presence of variant alleles of two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNF*α and *TNF*β, directs a user to a specific perioperative clinical pathway for said subject.

84. (new) A kit for generating a perioperative genomic profile for a subject, comprising:

a) reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said

surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNF*α and *TNF*β so as to generate a genomic profile for use in selecting a perioperative course of action for said subject; and

b) a computer program comprising instructions which direct a processor to analyze data derived from use of said reagents to indicate an anesthesia treatment course of action.

85. (new) The kit of Claim 84, wherein said instructions indicate an a general anesthesia treatment course of action.

86. (new) The kit of Claim 85, wherein said general anesthesia is an inhalational treatment course of action.

87. (new) The kit of Claim 85, wherein said general anesthesia is an intravenous treatment course of action.

88. (new) The kit of Claim 85, wherein said general anesthesia is a combined inhalational and intravenous treatment course of action.

89. (new) The kit of Claim 84, wherein said instructions indicate an a regional anesthesia treatment course of action.

90. (new) The kit of Claim 84, wherein said instructions indicate a combined regional and general treatment course of action

91. (new) The kit of Claim 84, wherein said instructions indicate an anesthesia treatment course of action during a medical procedure.

92. (new) The kit of Claim 84, wherein said instructions indicate dosages of analgesic compounds.

93. (new) The kit of Claim 84, wherein said instructions indicate increasing the dosage of analgesic compounds metabolized by CYP2D6.

94. (new) The kit of Claim 84, wherein said instructions indicate decreasing the dosage of analgesic compounds metabolized by CYP2D6.

95. (new) The kit of Claim 84, wherein said instructions indicate prophylaxis for thrombosis.

96. (new) The kit of Claim 84, wherein said instructions indicate increasing prophylaxis for thrombosis mediated by variant alleles of *F5, F2, MTHFR, MTR, MTRR,* and *CBS.*

97. (new) The kit of Claim 84, wherein said instructions indicate decreasing prophylaxis for thrombosis mediated by variant alleles of *F5, F2, MTHFR, MTR, MTRR,* and *CBS.*

98. (new) The kit of Claim 84, wherein said instructions indicate monitoring procedures.

99. (new) The kit of Claim 84, wherein said instructions indicate pre-operative phenotypic tests and consultations.

100. (new) The kit of Claim 84, wherein said instructions provide a prognosis after an anesthesia treatment course of action.

101. (new) A kit for generating a perioperative genomic profile for a subject, comprising:

a) reagents configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNFα* and *TNFβ* so as to generate a genomic profile for use in selecting a perioperative course of action for said subject; and

b) a computer program comprising instructions which direct a processor to analyze data derived from use of said reagents to indicate a surgical treatment course of action.

102. (new) The kit of Claim 101, wherein said instructions indicate a non-invasive surgery treatment course of action.

103. (new) The kit of Claim 101, wherein said instructions indicate an invasive surgery treatment course of action.

104. (new) The kit of Claim 101, wherein said instructions provide a prognosis after a surgical treatment course of action.

105. (new) The kit of Claim 101, wherein said instructions indicate a post-operative treatment course of action.

106. (new) A perioperative genomic profile kit having component parts configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR,*

MTRR, CBS, TNFα and *TNFβ*, so as to generate a genomic profile for use in selecting a perioperative course of action for said subject and thereby providing a subject-specific clinical pathway for said subject, comprising information to optimize perioperative care that, based at least on the presence or absence of said variant alleles of two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNFα* and *TNFβ* measured by said kit, directs a user to a specific clinical pathway of medical intervention for said subject.

107. (new) A perioperative genomic profile kit having component parts configured such that when exposed to a sample containing target nucleic acid from a perioperative subject, said subject being a patient scheduled for a surgical procedure that has not yet completed said surgical procedure, are sufficient to detect the presence or absence of variant alleles in two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNFα* and *TNFβ*, so as to generate a genomic profile for use in selecting a perioperative course of action for said subject and thereby providing a subject-specific clinical pathway for said subject, comprising information to optimize perioperative care that, based at least on the presence or absence of said variant alleles of two or more genes associated with two or more conditions selected from the group consisting of *BChE, CYP2D6, F5, F2, CACNAIS, MTHFR, MTR, MTRR, CBS, TNFα* and *TNFβ* measured by said kit, directs a user to a specific clinical pathway of anesthesia intervention for said subject.